By DOUGLAS R. FOX

# Motor Vehicles, Model Year 1980

SALES of new motor vehicles declined in model year 1980 to 12.0 million from 14.7 million in 1979. This decline was the second in a row. Sales of both new passenger cars and new trucks were down sharply as a result of unfavorable economic and financial developments. Concern about fuel economy again raised the market shares of domestic small and imported cars and of imported trucks. Inventories of motor vehicles were reduced throughout the model year in response to slumping sales and increasing financing costs. Production of both cars and trucks was down sharply from 1979.

## New Cars

Retail sales of new passenger cars totaled 9.2 million in the 1980 model year down from 11.0 million in 1979. The sharp decline was almost entirely due to a dropoff in domestic intermediate and full-size car sales. Intermediate sales fell from 2.6 million in 1979 to 1.9 million in 1980, and full-size sales from 2.4 to 1.6 million. Domestic small car (subcompacts and compacts) sales declined slightly from 3.7 to 3.4 million. Imported car sales were up slightly from 2.2 to a record 2.4 million and accounted for their largest share ever of total sales—26 percent. On a quarterly basis, total new car sales were 9.6 million (seasonally adjusted annual rate) in the fourth quarter of 1979, rose to 10.7 million in the first quarter of 1980, plunged to 7.7 million in the second quarter, and recovered somewhat to 8.7 million in the third (chart 5).

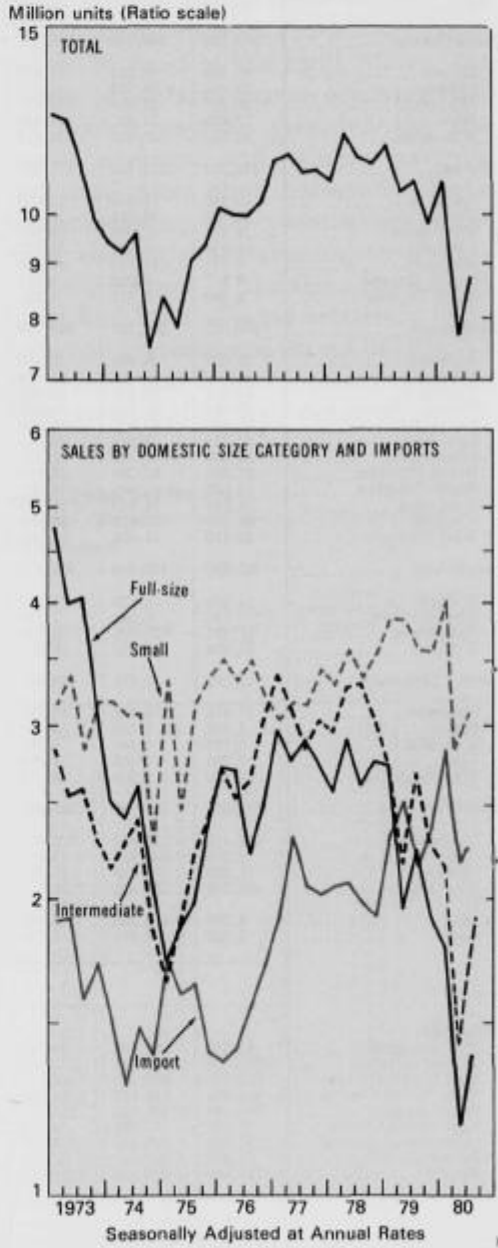
The decline in the volume and the quarterly pattern of sales can largely be traced to several economic and financial developments during the 1980 model year. Real disposable personal income was virtually unchanged for six consecutive quarters through the first quarter of 1980, then dropped precipitously in the second quarter, before recovering somewhat in the third. Other factors that contributed to the reluctance of buyers to purchase a new car were: mounting uncertainty about job security and concern over future income losses due to plant closings and layoffs, losses in the value of financial assets and considerable instability in the financial markets, and a slowing in the monetization of capital gains on existing residences as the increase in housing prices decelerated and the volume of transactions declined. Finally, and perhaps most importantly, there were difficulties in financing new car purchases—approximately three-fifths of all new cars are purchased on credit—due to record-high interest rates on auto installment loans and constraints on the availability of credit. Finance rates on selected consumer auto installment loans by commercial banks, which had been about 12½ percent at the beginning of the 1980 model year, increased to 13½ percent in the first quarter of 1980 and to a record 15½ percent in the second quarter. Tight funds limited the availability of credit to marginal buyers. During this period, credit extensions were cut back—severely by commercial banks and credit unions, and moderately even by finance companies (which include automakers' subsidiaries).

### *Fuel economy*

In 1980, as in the previous 2 years, auto manufacturers met federally mandated Corporate Average Fuel Economy (CAFE) standards. These standards are applied to each manufacturer and are based on the average miles per gallon

CHART 5

**Retail Sales of New Passenger Cars**




Note.—The components may not add to the total because each category was separately adjusted for seasonal variation.

Data: Motor Vehicle Manufacturers Association of the United States, Inc. and Ward's Automotive Reports; seasonal adjustment by BEA.

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(mpg) ratings for each model, weighted by the number produced. The first CAFE standard, in 1978, was 18.0 mpg; it rose 1.0 mpg in each succeeding year through 1980. In 1981, the standard jumps to 22.0 mpg, but all manufacturers are expected to exceed that mark.

The steady improvements in CAFE can be attributed both to design and engineering changes in the cars produced and to shifts in the composition of cars sold. Downsizing—the reduction of exterior size and weight without reducing interior size—has greatly enhanced fuel economy. A popular full-size model had a wheelbase of 121 inches and weighed 4,281 pounds in 1974, was reduced to 116 inches and 3,771 pounds in 1977, and, by 1980, was down to 3,499 pounds. The lighter weight allowed reductions in engine size and the substitution of six-cylinder for eight-cylinder engines as standard. According to Environmental Protection Agency (EPA) estimates for city driving, fuel economy for this model improved from 11 mpg in 1974 to 16 mpg in 1977 to 18 mpg in 1980. Increased use of diesel engines also raised the fuel efficiency of large cars—diesel engines were rated about 5 mpg higher than gasoline engines in the same models. The diesel engine option was available on more models in 1980, and the number of diesels installed increased by almost one-third. It is likely that diesel engines for small cars will be available within the next few years. Another fuel-saving possibility is the development of engines that switch the number of cylinders in operation in response to driving demands.

In the latter half of the 1970's, most of the technological improvements and downsizing were concentrated on large cars. In 1980 and 1981, domestic manufacturers have introduced several redesigned, downsized small cars. These are termed "world cars," i.e., cars that share a basic design and have standardized components that can be manufactured in large volume at specialized plants in various countries and then assembled into final products near major consumer markets. These cars are smaller, lighter, and achieve significantly better fuel economy than their predecessors. Foreign manufacturers have broadened their product lines and have continued to upgrade the fuel economy of their cars.

A shift in the composition of new car sales to smaller cars has also contributed to the improvement in overall fuel economy. Fuel economy is closely correlated with size—smaller cars generally weigh less and use smaller engines. A 1980 model compact was rated at 22 mpg, an intermediate at 20 mpg, and a full-size car at 18 mpg. From the 1979 to the 1980 model year, domestic small cars increased their market share from 33½ percent to 36½ percent, and imports (which are nearly all subcompacts and compacts) from 20½ to 26 percent. The intermediate share fell from 24 to 20½ percent, and the full-size share from 22 to 17 percent.

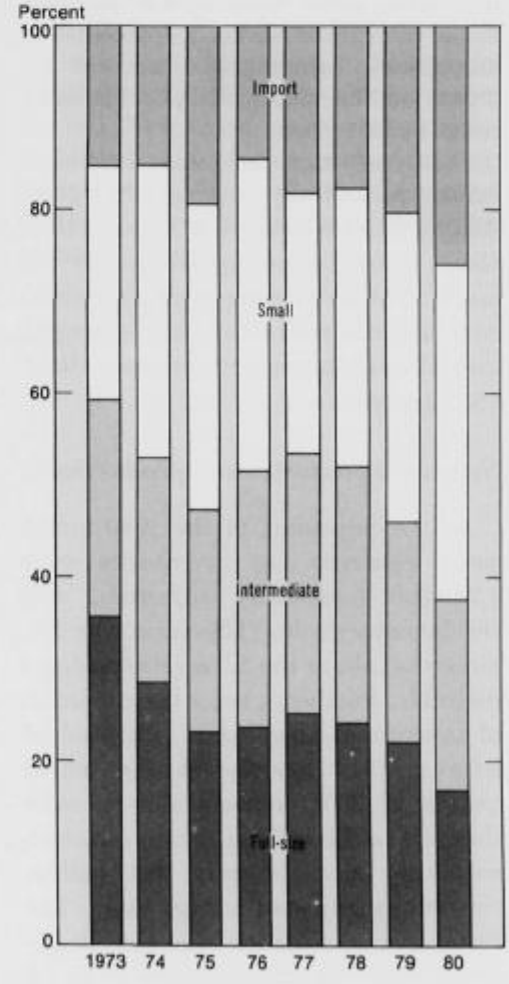
The shift in the composition of sales in the 1980 model year was a continuation of a trend that began after the oil embargo in the fall of 1973. The ensuing gasoline shortage and huge runup in gasoline prices led buyers to consider fuel economy as a major factor in the selection of a new car. This consideration probably had a limited effect upon the volume of new car sales but greatly influenced the buyers' choice of car size. From the 1973 to the 1975 model year the full-size car share of the market plunged from 35½ percent to 23 percent. The domestic small and intermediate and the imported car shares all increased (chart 6). After the initial runup in late 1973 and early 1974, gasoline prices increased only gradually over the next 4½ years. From 1975 to 1978 the full-size market share stabilized, but at a level far below that which prevailed before the oil embargo. Buyers who might normally have been expected to purchase these models may have "traded down" to intermediates—intermediates increased their market share by 4 percentage points to 28½ percent. The small domestic and import shares receded somewhat during the period. In early 1979, another gasoline shortage and price runup led to a further sales shift toward smaller cars. Many buyers "traded down" to the newly redesigned and more fuel-efficient domestic and imported small cars. From 1978 to 1980 domestic small and imported cars each increased their market shares by about 7 percentage points; the intermediate and full-size shares each fell by about 7 points.

### *New car prices*

As they had in 1978 and 1979, domestic car manufacturers raised prices periodically during the 1980 model year. As before, the increases were selective—allowing manufacturers to adjust individual model and option prices to meet changes in market conditions. At model-year introduction in October 1979, prices were raised an average of 4½–5 percent on all models, about the same as in the prior year. Despite the further weakening of new

CHART 6

**Market Share of New Car Sales by Model Year**




Note.—Based on October through September sales for each model year.
Data: Motor Vehicle Manufacturers Association of the United States, Inc. and Ward's Automotive Reports.

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car sales, incremental price increases during the 1980 model year were as frequent and large as those in 1979. These increases, averaging about 1½–2 percent, were made at about 3-month intervals. Popular selling small cars and newly redesigned large cars bore the brunt of the increases.

Price increases at the time of the introduction of the 1981 models were in the 2–3 percent range, somewhat less than for the 1980 models. Again, the increases centered on the smaller models. The margins between the manufacturers' wholesale prices and the dealers' retail prices were realigned—margins on intermediate and full-size models and optional equipment were narrowed, and those on small car models were widened. Also, equipment that formerly was optional on many models was made standard. The effect of these changes was to lower the calculated price increase for 1981 models. Within the first week after introduction an additional increase of about 2½ percent was announced, bringing the average increase on the new models to the same range as last year.

Prices of imported cars were also raised periodically during the year. After a smaller increase at introduction, their prices were upped nearly as much as those of competing domestics. Announced increases for 1981 by several major foreign manufacturers were about 4½–5 percent.

### *New car inventories and production*

At the beginning of the 1980 model year, domestic car inventories were 1,749,000 (seasonally adjusted), and the inventory/sales (I/S) ratio was 2.4, somewhat above the 2.0 level considered desirable. Further, a much larger portion of inventories than usual consisted of leftover 1979 models. In the fourth quarter of 1979, domestic new car sales slumped to 7.5 million, but production was cut back to only 7.3 million (seasonally adjusted annual rate). The cutback in production was largely accomplished by temporary—1 or 2 week—plant closings, although there was some permanent slowing of line speeds and elimination of second work turns. By the end of the fourth quarter, 125,000 auto workers were on indefinite layoff, up from 88,000 at the beginning of the quarter. As a result of the production cutback, inventories declined to 1,674,000, but the I/S ratio climbed to 2.7. An oversupply of 1979 models continued to plague dealers. Sharply rising interest rates in the first half of 1980 also pressed dealers to pare inventories to reduce carrying costs.

In the first quarter, extensive dealer incentive and consumer rebate programs stimulated sales and enabled dealers to bring inventories closer to desired levels. Inventories were reduced sharply to 1,438,000, and the I/S ratio fell to 2.2. Production was down to 7.1 million, and two plants were closed permanently. Indefinite layoffs totaled about 170,000 at the end of the quarter. Coincident with the plunge in new car sales in the second quarter, production was slashed to 5.6 million, the lowest level since the first quarter of 1975. Inventories held steady, and the I/S ratio jumped to 3.2. The number of auto workers on indefinite layoff at the end of the quarter was nearly 250,000, considerably above the 205,000 peak registered during the 1974–75 recession.

### *Recent developments*

Improving economic and financial conditions led to a partial recovery in new car sales in the third quarter. Real disposable personal income showed a sizeable increase, and interest rates were down considerably from the second quarter. Domestic small and intermediate car sales increased strongly—from 2.8 to 3.2 million and from 1.4 to 1.8 million, respectively. Domestic full-size sales increased moderately from 1.2 to 1.4 million, and imports were steady at 2.2 million. Domestic new car inventories declined sharply to about 1,300,000, the lowest level in more than a decade, and the I/S ratio was down to 2.4. Domestic production was up only slightly to 5.8 million.

The very low level of production in the third quarter indicates manufacturers' expectations of a slow start for the 1981 model year; inventories of new models are not at a level that would sustain a large increase in sales. According to current schedules, production is slated to pick up to about 7.1 million in the fourth quarter.

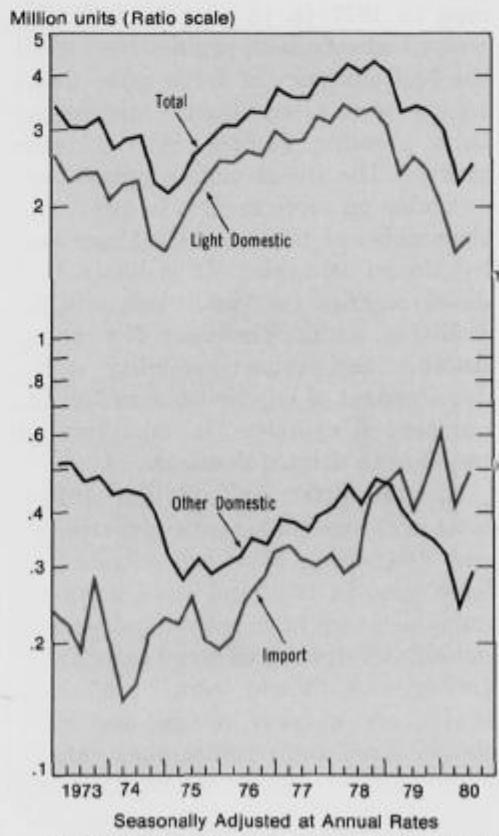
## New Trucks

Retail sales of new trucks totaled 2.8 million in the 1980 model year, down sharply from 3.7 million in 1979. New truck sales were 3.3 million (seasonally adjusted annual rate) in the fourth quarter of 1979, declined to 3.0 million in the first quarter of 1980, plummeted to 2.3 million in the second quarter, and recovered slightly to 2.5 million in the third (chart 7).

Domestic light (up to 10,000 pounds) truck sales, which comprise over two-thirds of total sales, continued to decline from their peak in the second quarter of 1978. Most of these trucks are pick-

CHART 7

**Retail Sales of New Trucks**




Note.—Retail sales of domestic new trucks are classified by gross vehicle weight as light—up to 10,000 pounds, and other—over 10,000 pounds. Import trucks include imports by U.S. manufacturers.

Data: Motor Vehicle Manufacturers Association of the United States, Inc. and Ward's Automotive Reports; seasonal adjustment by BEA

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ups and vans, over one-half of which are purchased by consumers for personal use. Sales of light trucks were 2.4 million in the fourth quarter of 1979 and dropped to 2.0 million in the first quarter of 1980. Sales bottomed at 1.6 million—equaling the low in the 1974–75 recession—in the second quarter, and then edged up to 1.7 million. The sales pattern paralleled that of new cars and was influenced by the same economic and financial developments. Price increases on domestic light trucks exceeded those on cars in the 1980 model year.

Sales of imported trucks, which include trucks produced overseas but sold by domestic dealers, were up more than 10 percent in the 1980 model year. Imported truck sales were strong—499,000 (seasonally adjusted annual rate)—at the beginning of the model year, jumped to a record 618,000 in the first quarter of 1980, dropped precipitously to 418,000 in the second quarter, and rebounded to 497,000 in the third. Imported trucks accounted for over 20 percent of total light truck sales in the 1980 model year, the highest percentage ever.

The increase in imported truck sales at the expense of domestics can partly be attributed to buyers' concern about fuel economy. Nearly all imported trucks are compact pickups, which are smaller and lighter than their domestic counterparts. Imports are equipped with four-cylinder engines; domestics require six-cylinder and offer eight-cylinder engines as options. According to EPA fuel economy estimates for 1980 models, imported compact pickups averaged 21–25 mpg, compared with 14–18 mpg for domestic conventional pickups.

Prices of imported trucks increased by about as much as those of domestics in the 1980 model year. At the time of 1981 introduction, however, they are likely to be up considerably more than domestics, principally due to a recent change in tariff rulings by the U.S. Customs Service. Previously, imported truck cab-chassis assemblies were imported at the 4 percent duty-rate for truck parts and later joined to truck bodies. Effective August 21, the 25 percent duty-rate for completed trucks is levied on these units.

Over the next few years, more compact pickup trucks will be produced domestically. One manufacturer began to produce these trucks this year, and the rest are scheduled to follow in 1982–83. Downsizing of conventional pickups is also planned. These developments will help domestic manufacturers meet the CAFE standards for light trucks. The standard for 2-wheel drive trucks is slated to rise from 16.0 mpg in 1980 to 16.7 mpg in 1981 to 18.0 mpg in 1982, and for 4-wheel drives from 14.0 to 15.0 to 16.0 mpg. Several foreign manufacturers are planning to build plants in the U.S. to produce light trucks.

Sales of "other" (over 10,000 pounds) domestic trucks were down sharply in 1980. This broad category consists of medium-weight trucks, mostly general delivery trucks and buses, and heavy trucks, mainly large single-units and diesel tractors designed to pull trailers. Sales of these trucks peaked at 478,000 in the fourth quarter of 1978 and then declined steadily, bottoming at 240,000 in the second quarter of 1980. Sales recovered somewhat to 291,000 in the third quarter.

Domestic new truck inventories were 920,000 (seasonally adjusted) at the end of the third quarter of 1979, the highest ever at the time of new model introductions. Inventories were run off throughout the 1980 model year, falling to 530,000 at the end of the third quarter of 1980. New truck production roughly paralleled that of new cars, declining sharply in the first and second quarters of 1980, before flattening in the third quarter.